THE SUBGENUS DESUMENOPON OF AMYRSIDEA (MALLOPHAGA: MENOPONIDAE)

WILLIAM C. SCHARF AND K. C. EMERSON

(WCS) Department of Biology, Northwestern Michigan College, Traverse City, Michigan 49684; (KCE) 560 Boulder Drive, Sanibel, Florida 33957.

Abstract.—Six species of the genus Amyrsidea Ewing subgenus Desumenopon Carriker from galliform hosts of the family Phasianidae genus Odontophorus Vieillot are described and illustrated. Amyrsidea praegracilis cumbrensis Carriker is a new synonym of A. gujanensis Carriker. Several new hosts are recognized, and a key is given for the identification of species.

The menoponid genus *Amyrsidea* Ewing, 1927, was recently revised, and six subgenera are recognized (Scharf and Price, 1977). Presented here are descriptions, illustrations, and a key to the six species included in the subgenus *Desumenopon* Carriker. All species described here belong to *Amyrsidea sensu lato* which is described along with keys to the subgenera (Scharf and Price, 1977).

In the following descriptions, numbers of certain head setae are those given by Clay (1969). Measurements are in millimeters. Unless noted, all illustrations are of specimens from the type-host. The nomenclature of the hosts follows Peters (1934).

SUBGENUS Desumenopon Carriker

Desumenopon Carriker, 1954: 25.

Type-species: Amyrsidea praegracilis Carriker.

Desumenopon is a group of closely related lice which are known only from the Neotropical genus *Odontophorus* Vieillot (Phasianidae). It is separated from other subgenera by the following combinations of characters:

(1) Head with moderately wide temples; difference between temple and preocular width, 0.09-0.12.

(2) Hypopharyngeal sclerite weakly developed (Fig. 1).

- (3) Preocular slit deep (0.04-0.05).
- (4) Preocular seta 11 longer than 0.10 and thicker than seta 10.

(5) Four or more dorsal head sensilla (approximately at hypopharyngeal level) between sensilla c (Fig. 2).

(6) Terminal antennal segment short and wide, ratio of width to length more than 0.5.

- (7) Eyes of moderate size, neither reduced nor prominent.
- (8) Sternum I with 2 setae.
- (9) Outer medio-anterior metanotal setae shifted anteriorly.
- (10) Female without sexually dimorphic enlarged terga.

(11) Female pleura not extended.

(12) Female segment IX with anal fringes and sternal setae similar to Fig. 11; no spiniform setae.

Amyrsidea (Desumenopon) praegracilis Carriker Figs. 1, 2, 4, 5, 11

Amyrsidea praegracilis praegracilis Carriker, 1950: 509.

Type-host: *Odontophorus gujanensis polionotus* Osgood and Conover (error) = *O. g. marmoratus* Gould.

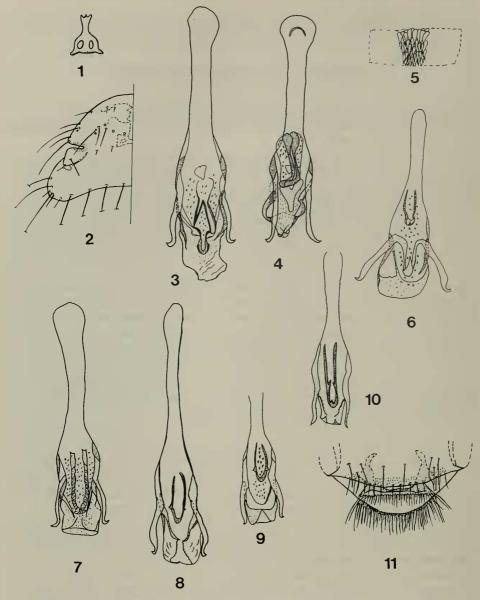
Male. – Postmental setae each side with 1 medium, 1 long, and 2 short lateral setae. Middorsal head setae minute; inner seta 17 slightly anterior to outer 18. With 4–7 dorsal head sensilla between sensilla c. Gular plate with 4 + 4 setae. Pronotal margin with 16-18 long and 4 short setae. Metanotal margin with 10-14 long setae; mesosternal and metasternal plates triangular with 10-11 and 8-10 setae, respectively. Venter of each femur III with brush of 14–22 short setae. Marginal abdominal tergal setae: I, 16–18; II, 15–16; III, 18; IV, 22; V, 17–26; VI, 23–24; VII, 21–24; VIII, 13–18. Postspiracular setae long on I–II and very long on III-VIII; all marginal setae between postspiracular setae medium. With 2-4 medium latero-anterior tergal setae on V-VII, none on VIII. Last tergum each side with 2 very long marginal setae with 1 short seta latero-anterior to these, no anterior setae, and 10-15 total inner posterior setae. Pleura normal with 7-9marginal and 5-7 anterior setae of medium length. Sternal setae: II, 22-27; III, 22-24; IV, 22-26; V, 22-26; VI, 19-23; VII, 13-29; VIII, 24-26. Sternal brushes each side: III, 11-13; IV, 19-22; V, 21-22; VI, 16-24; VII, 15-23. Sterna VIII and IX not fused; IX with 14-20 marginal medium setae on subgenital plate and 16-24 anterior medium setae. Genitalia as in Fig. 4.

Female. – Head and thorax as for male. Marginal abdominal tergal setae: I, 13– 18; II, 14–31; III, 19–34; IV, 26–38; V–VII, 36–40; VIII, 21–22. With 4–8 medium latero-anterior setae on V–VII, 2 on VIII. Tergum IX as for male but with 18– 21 total inner posterior setae. Sterna VIII and IX fused, with 20–29 anterior and 26–28 setae marginal to the subgenital plate; coarse patch of microtrichia lining vulva (Fig. 5). Anus with 36–50 dorsal and 37–55 ventral fringe setae.

Dimensions. – Preocular width, male 0.31-0.34, female 0.31-0.34; temple width, male 0.41, female 0.41-0.46; prothorax width, male 0.35-0.36, female 0.36-0.39; metathorax width, male 0.41-0.45, female 0.44-0.50; total length, male 1.73-1.77, female 1.61-1.83; male genitalia width 0.10-0.12, length 0.50-0.51.

Remarks.—The single female specimen from *Odontophorus erythrops* Gould has 7–12 more marginal tergal setae each on I–IV and slightly fewer (2–4) sternal setae than do specimens from the type-host; in the absence of males and the presence of distinctive latero-anterior setae on abdominal terga V–VII, it seems prudent to consider it as this species. The L-shaped male genital sclerite is seen to be a double structure when the genitalia are twisted, but even in the several cases of everted genital sacs, the structure remains distinctive and recognizable (Fig. 4).

Material examined. $-10 \$ β , $11 \$ (including holotype β and allotype φ on slide 68585, USNM, and 3β and 3φ paratypes), *Odontophorus gujanensis marmoratus*, Colombia, Panama; $1 \$, *Odontophorus erythrops*, Panama.



Figs. 1-11. Amyrsidea (Desumenopon) spp. 1, Weakly developed hypopharyngeal sclerite of A. praegracilis, from Odontophorus erythrops. 2, A. praegracilis, head, from O. erythrops. 3, A. gujanensis, male genitalia. 4, A. praegracilis, male genitalia, from O. gujanensis marmoratus. 5, A. praegracilis, microtrichia lining female vulva. 6, A. hyperythra, male genitalia. 7, 8, A. complicata, male genitalia. 9, A. ricaurtei, male genitalia. 10, A. speciosa, male genitalia. 11, A. praegracilis, female terminal segments showing anal fringe, from O. erythrops.

100

Amyrsidea (Desumenopon) gujanensis Carriker Fig. 3.

Amyrsidea praegracilis gujanensis Carriker, 1950: 509.

Type-host: Odontophorus g. gujanensis (Gmelin).

Amyrsidea praegracilis cumbrensis Carriker, 1950: 509. New Synonymy Type-host: O. colombianus (Gould).

Male.—Essentially as for *A. praegracilis* except more marginal tergal setae II-VIII: II, 26–32; III, 33–36; IV, 36–38; V, 36–41; VI, 40–42; VII, 36–38; VIII, 30–34. With only 2 latero-anterior setae on terga I–VIII (4 on tergum IV of 2 specimens) and with inverted V-shaped sclerotization anteriorly and U-shaped genital sclerite posterior to this (Fig. 3).

Female. – Essentially as for *A. praegracilis* except tergal features as in male and microtrichia lining in vulva finer and sparser.

Dimensions.—As for *A. praegracilis* except total length, male 1.65–1.74, female 1.78–1.87; male genitalia width 0.11–0.13, length 0.52.

Remarks.—The tergal features of both sexes and the U-shaped genital sclerite are the distinctive features of *gujanensis*. The paired L-shaped genital sclerite of *praegracilis* may appear U-shaped if viewed at the right position. However, we have studied a number of different specimens of each species in different degrees of genital sac eversion and are convinced the difference is substantial.

Material examined. -2δ , 2φ (including holotype δ and allotype φ slide 68586, USNM, and δ and φ paratype), *Odontophorus g. gujanensus*, Venezuela, Peru; 2δ , 2φ (paratypes of *A. p. cumbrensis*), *O. columbianus*, Venezuela.

Amyrsidea (Desumenopon) hyperythra (Carriker) Fig. 6

Desumenopon praegracilis hyperythrus Carriker, 1954: 25 Type-host: Odontophorus hyperythrus Gould.

Male.—Essentially as for *A. praegracilis*, except tergum I with fewer marginal tergal setae, (10), no latero-anterior tergal setae on V–VIII, and genitalia with parameres connected and genital sclerite reduced as in Fig. 6.

Female.—Inseparable from females of *A. praegracilis* except tergum I possibly with fewer marginal tergal setae (12) and with no vulval microtrichia.

Dimensions.—Head and thorax slightly smaller in each dimension (by 0.01–0.02) than *A. praegracilis*; total length, male 1.70, female 2.01; male genitalia width 0.14, length 0.38.

Remarks.—The genital sclerite (compare Figs. 4 and 6), the slightly wider (0.01-0.02) and shorter (0.14) size of the genitalia, and the greater total length of the female are the distinguishing features of *hyperythra*. It is known from only one specimen of each sex.

Material examined. -1δ , $1 \Leftrightarrow$ (holotype and allotype, respectively, of *D. p. hyperythra* on slide 68614 USNM), *Odontophorus hyperythrus*, Colombia.

Amyrsidea (Desumenopon) complicata (Carriker) Figs. 7, 8

Desumenopon hyperythrus complicatus Carriker, 1967: 35. Type-host: *Odontophorus melanotus* Gould. Male. – Essentially as for *A. praegracilis* except for no latero-anterior setae on V-VIII, and long genitalia with genital sclerite having twisted appearance (Fig. 7) or elongate with 2 pointed projections (Fig. 8).

Female.-Unknown.

Dimensions.—As for *A. praegracilis* except total length, 1.52–1.60, and male genitalia width 0.14, length 0.48–0.50.

Remarks.—This species is apparently the shortest member of *Desumenopon* and, in addition to the genital sclerite features described above, it has the longest and widest genitalia of the group.

Material examined. -2δ (including holotype of *D*. *h. complicatus*, on slide 68243, USNM), *Odontophorus melanotus*, Ecuador, Panama.

Amyrsidea (Desumenopon) ricaurtei (Carriker) Fig. 9

Desumenopon hyperythrus ricaurtei Carriker, 1967: 35.

Type-host: Odontophorus erythrurus parambae Rothschild.

Male.—As for *A. praegracilis* except for genitalia with spinous sac and genital sclerite with 2 pointed projections extending laterally (Fig. 9) similar to the variant of *A. complicata* (Fig. 8).

Female.-Unknown.

Dimensions. — As for *A. praegracilis* except total length, 1.61, and male genitalia width 0.11, length 0.37.

Remarks.—The total length is nearly as short as *complicata*, but the genitalia are shorter and slightly slenderer than *complicata* in combination with the distinctive sac and genital sclerite features mentioned above (Figs. 7–9).

Material examined. -- 1 & (holotype of *D. h. ricaurtei*, on slide 68884, USNM), *Odontophorus erythrurus parambae*, Colombia.

Amyrsidea (Desumenopon) speciosa (Carriker) Fig. 10

Desumenopon speciosa Carriker, 1967: 35.

Type-host: Odontophorus s. speciosa Tschudi.

Male.—As for A. praegracilis except more marginal tergal setae on each of I– VII, 34–41, no latero-anterior setae on V–VIII, and genital sclerite with 3 pointed projections extending medially (Fig. 10).

Female.—As for A. praegracilis except total length, 1.70 and male genitalia width 0.10, length 0.44.

Remarks.—The shape of the genital sclerite is a prominent identifying characteristic.

Material examined. – 1 ô (holotype of *D. speciosa*, slide 68240 USNM), *Odon-tophorus s. speciosa*, Peru; 17 ô, 12 ♀, *O. s. loricatus* (Todd) [=*O. loricatus* (Todd)].

KEY TO SPECIES OF THE SUBGENUS DESUMENOPON

1.	Latero-anterior setae on terga V-VIII	2
-	No latero-anterior setae on terga V–VIII	3
2.	With 2 (occasionally 4) latero-anterior setae on each tergum I-VIII; male	
	with U-shaped genital sclerite (Fig. 3); female with sparse vuval microtri-	
	chia gujanensis Carrike	er

-	With 2 latero-anterior setae on terga I–II, none on III–IV, 2–8 on V–VIII; male with paired L-shaped genital sclerites (Fig. 4); female with dense, well-defined area of vulval microtrichia (Fig. 5)
2	praegracilis Carriker
3.	Male genitalia with parameres connected and genital sclerite reduced as in
	Fig. 6; one female known, without vulval microtrichia
	<i>hyperythra</i> (Carriker)
-	Male genitalia without parameres connected; and genital sclerites larger;
	female of <i>speciosa</i> with fine vulval microtrichia
4.	Male genitalia total length 0.48-0.61; genital sclerite either modified with
	twisted appearance (Fig. 7) or elongate (.1216) (Fig. 8); female unknown
	<i>complicata</i> (Carriker)
_	Male genitalia total length 0.37–0.42; genital sclerite shorter (.08–.10) and
	not twisted
~	
э.	Male genitalia with spinous sac and genital sclerite with 2 pointed projec-
	tions extending laterally as in Fig. 9; female unknown
	ricuartei (Carriker)
_	Male genitalia apparently without spinous sac and genital sclerite with 3
	pointed projections as in Fig. 10; female with sparse, fine vuval microtrichia
	extending medially speciosa (Carriker)

ACKNOWLEDGMENTS

We thank the following for the loan of specimens: Theresa Clay and Christopher Moreby, British Museum (Natural History), London; and Robert E. Elbel, University of Utah, Salt Lake City. Other specimens are in the personal collection of the junior author and the National Museum of Natural History, Washington, D.C. (USNM). R. D. Price assisted in many ways during the completion of this work.

LITERATURE CITED

- Carriker, M. A., Jr. 1954. The Menoponidae of the Cracidae and the genus *Odontophorus* (Neotropical Mallophaga Miscellany No. 8). Nov. Colombianas 1: 19-31.
 - —. 1950. Studies in Neotropical Mallophaga (X), Amblycera of the New World: Galliformes Pt. 2, The Genus Amyrsidea Ewing, Rev. Acad. Colomb. Cienc. 7: 490–510.
 - -. 1967. Carriker on Mallophaga. Bull. U.S. Natl. Mus. 248: ix + 150 pp.
- Clay, T. 1969. A key to the genera of the Menoponidae (Amblycera: Mallophaga: Insecta). Bull. Br. Mus. (Nat. Hist.) Entomol. 24: 1-26, 7 pl.
- Ewing, H. E. 1927. Descriptions of new genera and species of Mallophaga, together with keys to some related genera of Menoponidae and Philopteridae. J. Wash. Acad. Sci. 17: 86–96.
- Peters, J. L. 1934. Check-List of Birds of the World. Vol. II. Harvard Univ. Press, Cambridge, Mass. 401 pp.
- Scharf, W. C. and R. D. Price. 1977. A new subgenus and two new species of Amyrsidea (Mallophaga: Menoponidae). Ann. Entomol. Soc. Am. 70: 815–822.